

**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number

0800-0593

Case Title:

Abound Solar, Inc.

Reporting Office:

Denver, CO, Area Office

Subject of Report:

Interview of (b) (6), (b) (7)(C) and (b) (6), (b) (7)(C)

Activity Date:

May 1, 2013

Reporting Official and Date:

(b) (6), (b) (7)(C)

Special Agent

14-MAY-2013, Signed by: (b) (6), (b) (7)(C)

Approving Official and Date:

(b) (6), (b) (7)(C)

Special Agent in Charge

15-MAY-2013, Approved by: (b) (6), (b) (7)(C)
Special Agent in Charge

SYNOPSIS

On May 1, 2013, Special Agent (SA) (b) (6), (b) (7)(C) interviewed (b) (6), (b) (7)(C) and (b) (6), (b) (7)(C) regarding their knowledge of the alleged illegal disposal of ionic resin material contaminated with cadmium by representatives of Abound Solar, Inc. (Abound).

DETAILS

On May 1, 2013, SA (b) (6), (b) (7)(C) interviewed (b) (6), (b) (7)(C) (b) (6), (b) (7)(C) Resource Conservation and Recovery Act (RCRA) Compliance Enforcement Officer for the Colorado Department of Public Health and Environment (CDPHE), and (b) (6), (b) (7)(C) (b) (6), (b) (7)(C) CDPHE Hazardous Waste Compliance and Enforcement Office, regarding their knowledge of the alleged illegal disposal of ionic resin material contaminated with cadmium by representatives of Abound. The interview took place at the CDPHE office building located at 4300 Cherry Creek Drive South, Denver, Colorado.

The reporting Agent had previously identified himself to (b) (6), (b) (7)(C) and (b) (6), (b) (7)(C). After discussing the nature of the interview, (b) (6), (b) (7)(C) and (b) (6), (b) (7)(C) provided the below summarized information:

(b) (6), (b) (7)(C) advised that (b) (6), (b) (7)(C) conducted an inspection of the Abound facility in Longmont, Colorado on March 2, 2010. During the inspection, (b) (6), (b) (7)(C) was told by Abound representatives that the wastewater did not exhibit the toxicity characteristic for cadmium and that the wastewater treatment system had not yet been installed. (b) (6), (b) (7)(C) was also told that the resin filtration system was not in use and that Abound was using Clean Harbors to ship their wastewater off as hazardous waste because they wanted to be extra conservative. SA (b) (6), (b) (7)(C) showed (b) (6), (b) (7)(C) a picture of the ionic resin tanks used by Abound, and (b) (6), (b) (7)(C) advised that (b) (6), (b) (7)(C) had never seen the tanks before (attachment). (b) (6), (b) (7)(C) also stated that during (b) (6), (b) (7)(C) inspections of the Abound facility, (b) (6), (b) (7)(C) never talked to (b) (6), (b) (7)(C), former Facilities Manager for Abound.

(b) (6), (b) (7)(C) advised that in a liquid sample, a total analysis is like a Toxic Characteristic Leaching Procedure (TCLP) result. (b) (6), (b) (7)(C) added that (b) (6), (b) (7)(C) did not ask for or look at Abound's wastewater analytical results because it seemed as if Abound was being conservative in their hazardous waste determinations. SA (b) (6), (b) (7)(C) showed (b) (6), (b) (7)(C) and (b) (6), (b) (7)(C) a copy of Abound's TCLP analytical results for the resin material, and (b) (6), (b) (7)(C) related that he had never heard of anybody rinsing a sample prior to analysis in a TCLP and that a dilution step is already built into the TCLP (attachment).

(b) (6), (b) (7)(C) explained that Prime Star, a solar panel company that also uses cadmium in their

**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number

0800-0593

manufacturing process, uses ion exchange resins similar to Abound. (b) (6), (b) (7) related that Prime Star's premise for TCLP on their ion exchange resin was based off of the assumption that once the column was spent, it would contain high levels of metals. (b) (6), (b) (7) advised that Abound would not need approval from CDPHE as long as they (Abound) had a zero discharge permit with the local POTW. (b) (6), (b) (7) explained that with a 307 B discharge permit or a 402 National Pollutant Elimination Discharge System permit, the regulations transfer over to the Clean Water Act instead of RCRA. SA (b) (6), (b) (7)(C) showed (b) (6), (b) (7) a copy of a letter from Abound regarding the treatment and recovery of their wastewater (attachment). (b) (6), (b) (7) stated that he remembers having a conversation about these rules with an employee of Abound, but never recalled seeing a letter from Abound regarding reclamation of their wastewaters.

(b) (6), (b) (7) stated that it is up to the generator to make sure the sample is representative of their process. If a company is using a bench top model for sample analysis and to represent that wastes from their full scale production are not hazardous, then the CDPHE would probably make the company do a hazardous waste determination on the full scale production process to determine if their waste is hazardous. (b) (6), (b) (7) advised that under the explained circumstances, Abound's ion exchange columns were regulated as characteristic wastes. If the ion exchange resins were reclaimed, then Abound would not need to ship or manifest them as hazardous waste. (b) (6), (b) (7) stated that because Culligan Water Conditioning (Culligan) was dumping the ion exchange resin, it is subject to full regulation under RCRA. (b) (6), (b) (7) added that Abound was not considered an electroplating operation.

(b) (6), (b) (7) advised that two warehouses in Denver, Colorado and Loveland, Colorado are currently holding Abound's solar panels. (b) (6), (b) (7) related that two of Abound's solar panel models, referred to as "revisions F and G," were sold to a company in India. The other panels are going to be reclaimed by First Solar. (b) (6), (b) (7) said that First Solar has a signed agreement letter and is currently working with the Abound bankruptcy trustee. (b) (6), (b) (7) provided the reporting Agent with a copy of the agreement letter between the Abound bankruptcy trustee and First Solar (attachment). (b) (6), (b) (7) related that bids from PSC and Clean Harbors to recycle the Abound solar panels were over \$1 million. (b) (6), (b) (7) added that (b) (6), (b) (7)(C), Office of the Colorado Attorney General, is working on the panel issue and that the Abound bankruptcy trustees have hired a contractor to decontaminate the tools left on the Abound facility.

ATTACHMENT

Abound Ion Exchange Resin Tank Photograph.

TCLP Analytical Results: Abound Resin Material.

Abound Letter to Ed (b) (6), (b) (7) Summary of Treatment and Recovery of Wastewater.
Agreement Letter.